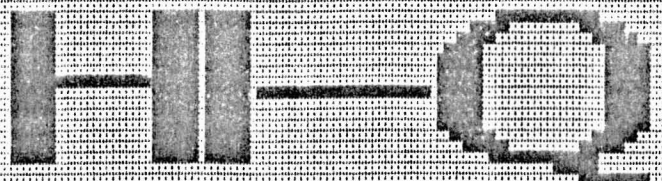


MAY 1989

AMATEUR RADIO IN THUNDER BAY - ONTARIO

**EDITED BY E.R.
BAUMANN VE3SNW**

**WRONG ADDRESS?
SUBSCRIPTION
PROBLEMS?
CALL
(807) 622-1216**



JOURNAL OF THE L.A.R.C.

**NEXT MEETING IS THURSDAY
MAY 11, 1989**

**E.M.O. BUILDING
CORNER VICTORIA &
BALMORAL
8:00 P.M.
EVERYONE WELCOME**

IS IT OFF ???

Spring is here, finally, and a lot of us are sprucing up our shacks, and retuning or rebuilding gear ravished by winter. The following reprinted from the April edition of Monitoring Times is a lesson for all of us ... Ed

Phil Ashcraft, NSDD, one of ham radio's best ambassadors and finest operators, died recently as the result of a high voltage shock he recieved while working on one of his amplifiers.

Ashcraft did not get started in ham radio until he was 62 but when he got bit by the bug, he went all-out. A successful - and now retired businessman - he had the wherewithall to do it right, too. A picture in QST some years ago showed him ering antennas by helicopter to a 185 foot tower. A 2-meter repeater was on an 800 foot tower he owned.

One afternoon, Phil was installing resistors on the input of his two linear amplifiers. he was adjusting the driver and somehow had left the high voltage power supply on. He got hit with 4,500 volts at 2 amps (it takes about 8 micro-amps to stop your heart ... Ed) when he reached into the amplifier.

The results were the worst imaginable. The voltage ripped through his body and out of his chest and hands, burning off an ear. His hand was nearly severed, his fingers were welded together and his watch seared into his skin. The room was filled with the smoke of burning flesh. Despite the seriousness of his injuries, Ashcraft was able to call his office for help.

The doctors gave the ham operator a 25 percent chance of living but only if they amputated both arms. There would, he was told, be a long, painful rehabilitation period. Ashcraft refused medical assistance, saying his time had come. That evening he was able to talk with friends and relatives. By morning he was gone.

... decided to tell you about NSDD not, frankly, because we knew him. We decided to tell you about Phil Ashcraft because of the graphic account of his death and the warning it might provide to other radio hobbyists. If Phil Ashcraft was anything like his friends make him out to be, he'd have wanted us to tell you his story. The next time you're poking around your radio, remember it.

EFFECTS OF STRONG SOLAR FLARES WILL BE FELT ON EARTH

BY SARAH COX - OTTAWA CITIZEN - FEB.10/89

The rust-coloured glob, streaked with two wiggly white flames, looked as though it was about to ooze straight down the side of Vic Gaizauskas's oversized computer screen.

"See?" he said, pointing to a black circle the size of a fingernail. It was a harmless-looking sunspot, another pock-mark on the scarred face of the Sun.

This year the black dots and white squiggles on the computer picture are taking on new signifigance.

Every eleven years, the Sun's outer layers erupt in a blaze of magnetic storms, characterized by an increase in sunspots and their fiery explosions known as solar flares.

The current solar cycle, which began on 1986, is expected to peak later this year. And scientists like Gaizauskas, an astrophysicist with the National Research Council in Ottawa, are predicting the 1989 flares could be the strongest of the century.

"We're very astonished," he said. "We're now either heading into a tie with the strongest cycle earlier this century or else we're heading for a new record."

Gaizauskas said astrophysicists haven't determined what causes solar flares.

But they hope within a few years there will be equipment sophisticated enough to probe directly into the middle of the sun and discover how the magnetic cycle is generated.

"It shows how little we know about the nearest star."

Even at a distance of 93 million miles, solar flares are nothing to be taken lightly. They can endanger space voyagers and satellites and disrupt global communications and power transmissions.

The flares sent protons, x-rays, electrons and other radiation streaming outward, disrupting the Earth's magnetic field.

In 1979, solar activity causes the American space station Skylab to tumble out of orbit and crash in Australia.

In 1978, there was a flare so large it wiped out for 12 hours all radio communications on the East Coast from Newfoundland to the Caribbean.

"People are going to be conscious of very unusual things happening with short wave radios," said Ken Tapping, an NRC researcher. "Certain bands will just close right down."

Homeowners and businesses may be in for surprises too: "You may suddenly find yourself with no power."

The NRC gives their data to the Federal Energy, Mines and Resources department, which alerts utility companies. The companies can often avoid power outages by shifting loads from one circuit to another in anticipation of the power surges.

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PAGE

TWO)

(SOLAR FLARES ... CONTINUED FROM PAGE 1)

caused by the flares.

The NRC has developed into a world leader in research on the solar flare phenomenon. But only by chance.

Just after the Second World War, NRC scientists decided to use old military radar equipment to make a radio telescope. They wanted to determine whether they could pick up radio waves from things in the sky - like the sun.

They just happened to use a wavelength that worked better than any other for monitoring solar activity.

For the past 40 years, NRC radio telescopes in British Columbia and at Ontario's Algonquin Park have been recording the size of solar flares and monitoring their cycles.

The information is sent around the world both daily and monthly, to such places as the U.S. National Aeronautics and Space Administration (N.A.S.A.).

"The key thing is that we started first," said Tapping. "It takes a long time to establish good data. Anyone starting now will need 40 years"

"These observations are not easy to make. You need a fair amount of practise at making them."

Kenneth Schatten, research astrophysicist at the Goddard Space Flight Centre in Greenbelt, Maryland, said NASA uses the Canadian figures to help calculate into which orbit satellites are sent.

When the space shuttle Atlantis blasted off from Cape Canaveral last month, it was steered into an orbit slightly higher than usual.

"If they know the sun is going to be very active they can try to put the space shuttle into orbit relative to solar activity," said Schatten.

Had Atlantis orbited too close to Earth, it could have suffered a slowdown, or "satellite drag", which is caused by the expansion of the atmosphere during increased solar activity. Low orbits are more vulnerable to satellite drag.

Strong solar flares also threaten military satellites which are placed in low orbits to get clearer pictures.

Tapping said radiation from the solar flares may also damage hardware on satellites.

He said astronauts should not be exposed to large solar flares expected later this year. "They probably wouldn't even be safe in a spacecraft."

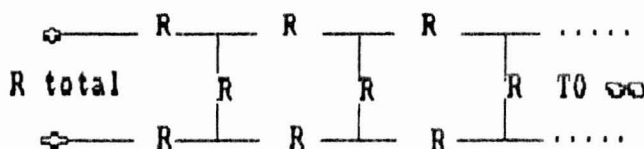
(from DX ONTARIO/MARCH 1989)

BRAIN TEASERFRANK VE3OTZ

How's your high school physics ?? this was on a recent physics test from Waterloo, Ontario.

Find the total resistance (R total) for the infinitely long network of identical R's.

This should give you a different perspective on transmission lines! Get your answer to Frank VE3OTZ. Calls submitting the right answer will be published next month.



UPCOMING EVENT — MAY 1989

1) THIS YEAR'S TEN MILE LEGION ROAD RACE IS SCHEDULED FOR MAY 22. WE WILL NEED ABOUT EIGHT OPERATORS FOR THIS. IF YOU CAN HELP, CONTACT FRANK VE3OTZ (577-7950)

2) MAY MEETING AT THE EMO BUILDING, 8:00 P.M., THURSDAY MAY 11, 1989.

MONEY MATTERS Gabe VE3ILX LARC Treasurer
Receipts and Expenditures 88/06/30 to 89/03/29

	1st Quarter	2nd Quarter	3rd Quarter	YTD
Receipts				
Memberships	315.00	1,205.00	57.50	1577.50
Interest	17.01	28.25	50.61	95.87
Donations	595.00	61.87	0.00	656.87
Other	1170.53	80.00	114.00	1364.53
TOTAL	2097.54	1,375.12	222.11	3694.77
Expenses				
Admin	665.00	108.00	161.98	936.74
HI-Q	64.00	189.22	164.83	418.13
Phone	140.00	151.69	73.42	365.96
YQT	128.06	94.39		222.45
FW		45.00	50.00	95.00
Special	695.00	50.00		745.00
Events	126.62			126.62
TOTAL	1820.53	639.14	450.23	2909.90
Current				
Balance	2508.45	3244.43	3016.31	3016.31
Saving Account.....				1776.36
Chequing Account.....				887.18
Charity Account.....				367.15
Petty Cash.....				50.00
Balance.....				3080.69
Contact Gabe VE3ILX if you require details or explanation.				
Not updated for May.				
How much is that in looneys?				

WANTED.....Diagram for Standard Systems SR-C830L
2-meter handheld, required by VE3PHA in Dryden. If
you can help, contact Gabe VE3ILX

GIVE SOMETHING BACK ...VOLUNTEER

ED (ITORIAL)

Hello again!! This is number four for me, and as usual it's an eleventh hour project. The livingroom floor is awash with paper and notes, the budgie is doing circuits of the room with the occasional touchdown on my head, and the rabbit is giving me dirty looks because the clatter from the printer is keeping him awake. The Dragon Lady has given up on me and has gone to bed several hours ago. You don't have to be nuts to do this, but it helps ease the aggravation of things not arriving on time (you still got that envelope Glen?) and losing the things that do arrive (like PHL's dictionary, I'll find it for next month, promise John, unless one of the critters around here ate it). As time passes I'll get more organized.

What have you been up to? Your paper is a lot more interesting if the content is local. Write a few words down and send it to 736 S. Morah St., Thunder Bay, Ontario, P7E 1P7. That includes things you want to sell/trade/give away/buy etc. Anybody want to do a column? A small construction project? Got a beef? The absolute deadline is the last day of the month if you want it in the next month's paper. This is necessary so I can get this out to you before the next meeting.

I received some very nice compliments regarding the look of your paper, and I thank you for those kind words. For the curious, it's done on an Commodore Amiga 500 computer, the software is PageSetter from GoldDisk in Toronto, and it is output on a Star NX-1000 (9 pin, I wish it were laser) printer. See you next month!!

P.S. Does anybody have John Erskine's (VE3OTC) new address? I'd like to mail him his HI-Q's.